# TRANSLATION PATENT COOPERATION TREATY POT

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

| Applicant's or agent's file reference  | FOR FURTHER ACTION  | See Form PCT/IPEA/416                       |  |  |  |  |  |  |
|--|---|---|--|--|--|--|--|--|
| International application No.  | International filing date (day/month/year)  | Priority date (day/month/year)              |  |  |  |  |  |  |
| PCT/RU2004/000479  | 26.11.2004  | 13.01.2004                                  |  |  |  |  |  |  |
|  |   |   |  |  |  |  |  |  |
| International Patent Classification (IPC) or national classification and IPC  F16B5/07   |   |   |  |  |  |  |  |  |
| Applicant KUZNETSOVA, Elena Yurievna   |   |   |  |  |  |  |  |  |
|  | 1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.                                      |   |  |  |  |  |  |  |
| 2. This REPORT consists of a total of  | sheets, include   | ling this cover sheet.                      |  |  |  |  |  |  |
| This report is also accompanied by Al  |   | ·   |  |  |  |  |  |  |
|  |   |   |  |  |  |  |  |  |
|  | to the International Bureau) a total of   |   |  |  |  |  |  |  |
|  | sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). |   |  |  |  |  |  |  |
|  | sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box                |   |  |  |  |  |  |  |
| b. sent to the International E   | Bureau only) a total of (indicate type and nun  | nber of electronic carrier(s))              |  |  |  |  |  |  |
|  |   | containing a sequence listing and/or tables |  |  |  |  |  |  |
| related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). |   |   |  |  |  |  |  |  |
| 4. This report contains indications relatir  | 4. This report contains indications relating to the following items:  |   |  |  |  |  |  |  |
| Box No. 1 Basis of the   | report .  |   |  |  |  |  |  |  |
| Box No. II Priority  |   |   |  |  |  |  |  |  |
| Box No. III Non-establis   | nment of opinion with regard to novelty, inventive step and industrial applicability  |   |  |  |  |  |  |  |
| Box No. IV Lack of unit  | y of invention  |   |  |  |  |  |  |  |
| 2 3 30% 110%   | Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement   |   |  |  |  |  |  |  |
| Box No. VI Certain doct  | aments cited  |   |  |  |  |  |  |  |
| Box No. VII Certain defe   | cts in the international application  |   |  |  |  |  |  |  |
| Box No. VIII Certain obse  | Box No. VIII Certain observations on the international application  |   |  |  |  |  |  |  |
| Date of submission of the demand   | Date of completion of   | This report                                 |  |  |  |  |  |  |
| Date of advingsion of the negligible   | Date of completion of   | i uno report                                |  |  |  |  |  |  |
| Name and mailing address of the IPEA/RU  | Authorized officer  |   |  |  |  |  |  |  |
|  |   |   |  |  |  |  |  |  |
| Facsimile No.  | Telephone No.   | Telephone No.                               |  |  |  |  |  |  |

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/RU2004/000479

| Box | : No. I | I                               | Basis of the report   |   |  |  |  |
|-----|---------|---------------------------------|---|---|--|--|--|
| I.  | With    | h regare<br>cated u             | d to the language, this report is based on the international nder this item.  | application in the language in which it   | was filed, unless otherwise                  |  |  |
|     |         | This i                          | report is based on translations from the original language<br>h is the language of a translation furnished for the purpose  | into the following languagees of:   |  |  |  |
|     |         |                                 | international search (Rule 12.3 and 23.1(b))  |   |  |  |  |
|     |         | 님                               | publication of the international application (Rule 12.4)  |   |  |  |  |
|     |         | Ш                               | international preliminary examination (Rule 55.2 and/or.  |   |  |  |  |
| 2.  | rece    | h regard<br>iving (i<br>report) | ed to the elements of the international application, this report is based on (replacement sheets which have been furnished to the Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to ); |   |  |  |  |
|     | X       | the in                          | sternational application as originally filed/furnished  |   |  |  |  |
|     | Ш       | the do                          | escription:   |   |  |  |  |
|     |         | pages                           |   |   | as originally filed/furnished                |  |  |
|     |         | pages                           | S*F   | eccived by this Authority on  |  |  |  |
|     |         | pages                           | S <sup>dr</sup>   | eceived by this Authority on  |  |  |  |
|     |         | the cl                          | faims:  |   |  |  |  |
|     |         | nos.                            |   |   | as originally filed/furnished                |  |  |
|     |         | nos. **                         |   | as amended (together with an  | y statement) under Article 19                |  |  |
|     |         | nos.*                           | ro  | eceived by this Authority on  |  |  |  |
|     |         | nos.*                           |   |   |  |  |  |
|     |         | the dr                          | rawings:  |   |  |  |  |
|     |         | sheets                          | s   |   | as originally filed/furnished                |  |  |
|     |         | sheets                          |   | eceived by this Authority on  | ,,   |  |  |
|     |         | sheets                          |   | -   |  |  |  |
|     | П       | a Seon                          | uence listing and/or any related table(s) - see Supplement.   |   |  |  |  |
| ,   |         |                                 | •   | ar now retaining to sequence bishing.   |  |  |  |
| 3.  |         | The a                           | mendments have resulted in the cancellation of:   |   |  |  |  |
|     |         | H                               | the description, pages  |   |  |  |  |
|     |         | 님                               | the claims, nos.  |   |  |  |  |
|     |         | 님                               | the drawings, sheets/figs   |   |  |  |  |
|     |         |                                 | the sequence listing (specify):   |   |  |  |  |
|     |         | Ш                               | any table(s) related to sequence listing (specify):   |   |  |  |  |
| 4.  |         | This they I                     | report has been established as if (some of) the amendme<br>have been considered to go beyond the disclosure as filed.   | ents annexed to this report and listed be<br>as indicated in the Supplemental Box ( | clow had not been made, since Rule 70.2(c)). |  |  |
|     |         | 님                               | the description, pages  |   |  |  |  |
|     |         | 님                               | the claims, nos.  |   |  |  |  |
|     |         | 닏                               | the drawings, sheets/figs   |   |  |  |  |
|     |         |                                 | the sequence listing (specify):   |   |  |  |  |
|     |         | Ш                               | any table(s) related to sequence listing (spacify):   |   |  |  |  |
| #   | lf ite  | ın 4 ap                         | pplies, some or all of those sheets may be marked "superso  | eded."  |  |  |  |

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International application No.
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| 1. Statement                  |          |     |     |
|-------------------------------|----------|-----|-----|
| Novelty (N)                   | Claims _ | 1-3 | YES |
|                               | Claims   |     | NO  |
| Inventive step (IS)           | Claims   | 1-3 | YES |
|                               | Claims _ |     | NO  |
| Industrial applicability (IA) | Claims _ | 1-3 | YES |
|                               | Claims _ |     | NO  |

2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: US 5588240 A

D2: SU 1624218 A1

D3: US 3825360 A

D4: FR 2815678 A1

The prior art closest to the invention according to claim 1 is the joint for connecting flat rigid parts, which comprises projections, embodied on the sides of the parts to be interlinked and having bulb-like broadenings on the ends and necks at their bases, and slots answering thereto, consisting of bulb-shaped indents, corresponding to the bulb-shaped broadenings of the projections, which pass into grooves corresponding to the necks of the projections (figures 1, 2A, 7, 8A, 8B, 8C, 8D).

The claimed joint differs from the prior art disclosed in D1 in that the surfaces of the projection ends and the surfaces of the face of the slots interlinking therewith are conical, the peaks of the conical surfaces of the ends of the projections, and of the face of the indents, being located on different sides with respect to the

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Box No. V

こうまだし 取り かいはん 神経の変形をはない 大きながっ 変形 神経の いっこうしゅう

は日本の東

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

parts to be connected.

From D2 is known a connection joint for flat parts, which comprises projections embodied on the sides to be interlinked, having broadenings on the ends and necks at their bases, and slots answering thereto, consisting of indents corresponding to the broadenings of the projections, passing into grooves corresponding to the necks of the projections; the surfaces of the projection ends and the surfaces of the face of the slots interlinked therewith are cut aslant (figures 1, 6).

However, D2-D4 do not disclose the following features of claim 1: "the surfaces of the projection ends and the surfaces of the face of the slots interlinked therewith are conical, the peaks of the conical surfaces of the projection ends and face of the indents are located on different sides in respect of the parts to be connected", which, in combination with the known features, ensure the flat connected parts work reliably, namely work in tension, in bending (in one direction), and in shear in a direction perpendicular to the plane of the parts to be connected, which is not obvious. Therefore, claim 1 and dependent claims 2-3 meet the requirement of novelty and inventive step.

Claims 1-3 meet the requirement of industrial applicability.